

Fig. 1

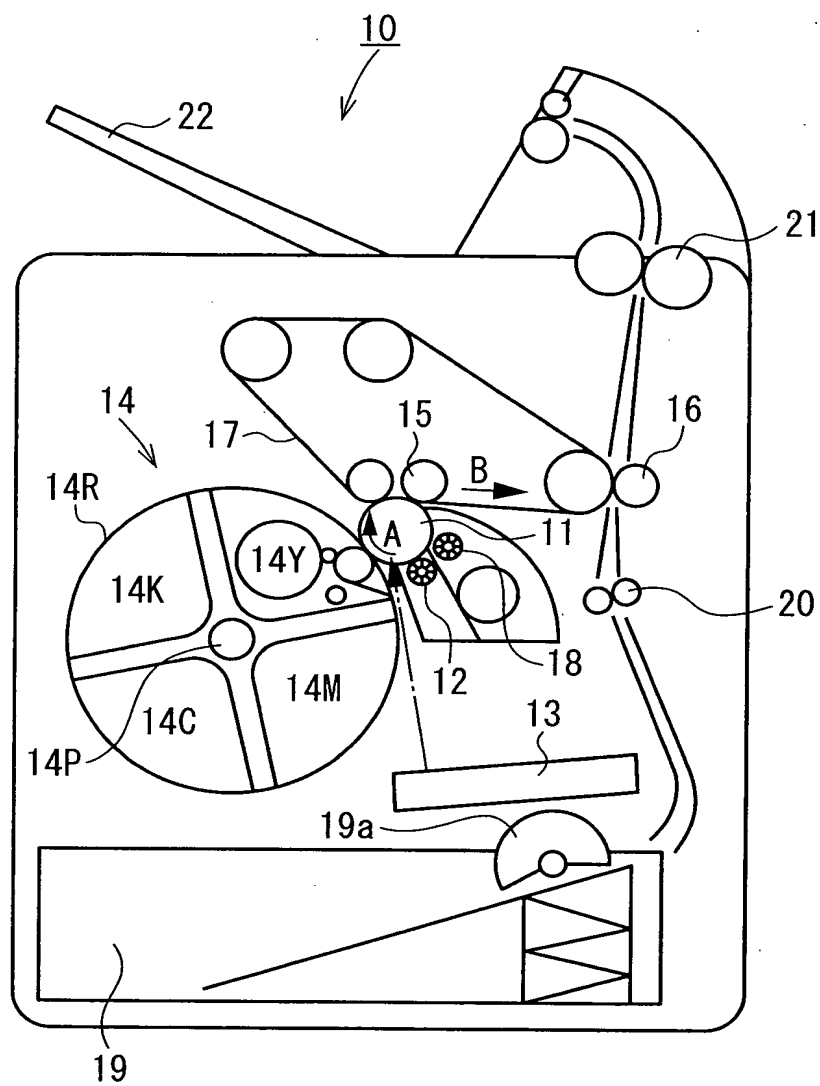


Fig. 2

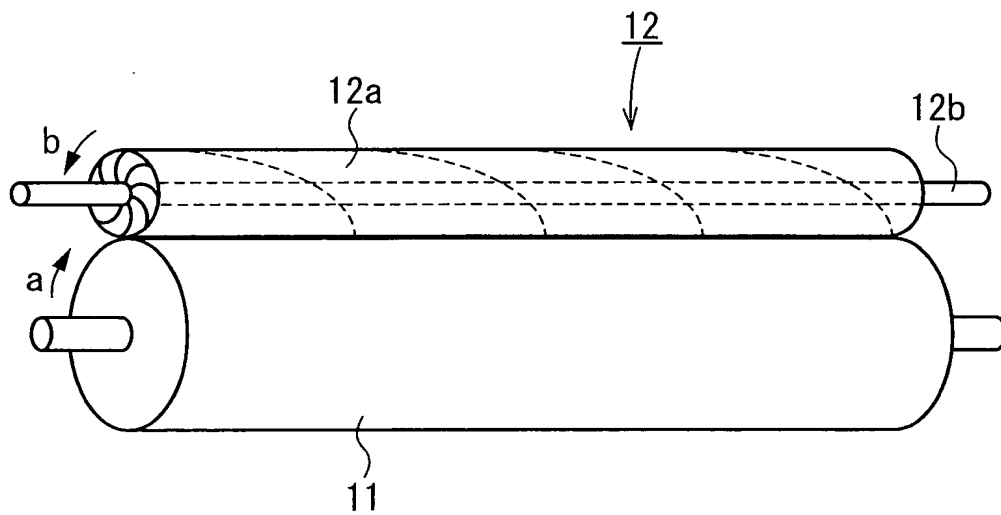


Fig. 3(a)

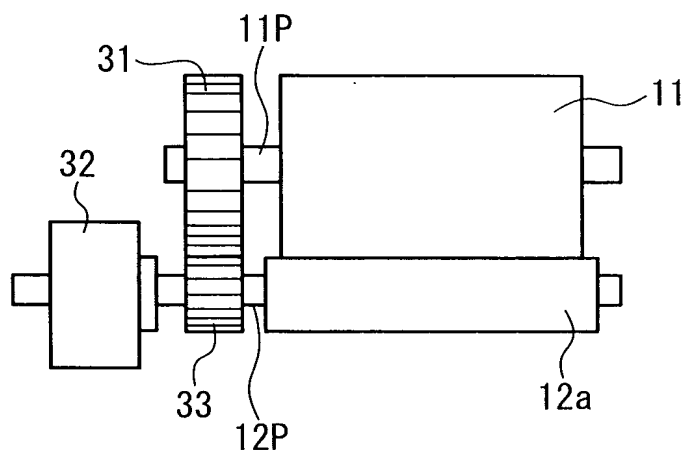


Fig. 3(b)

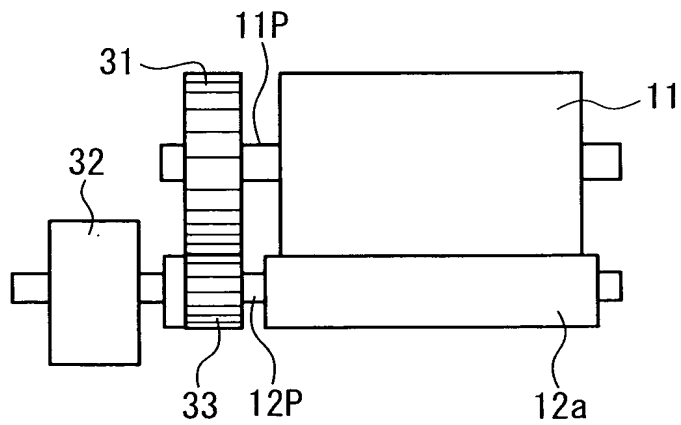


Fig. 4

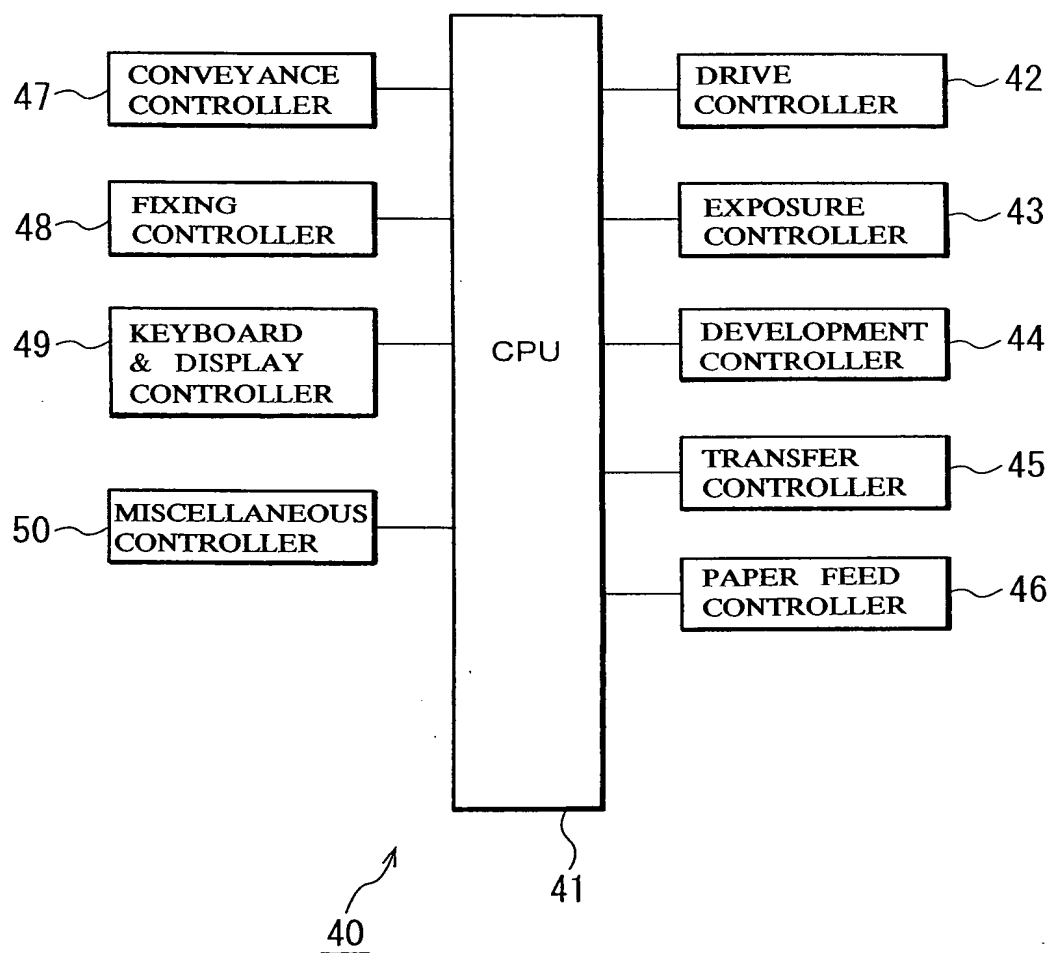


Fig. 5

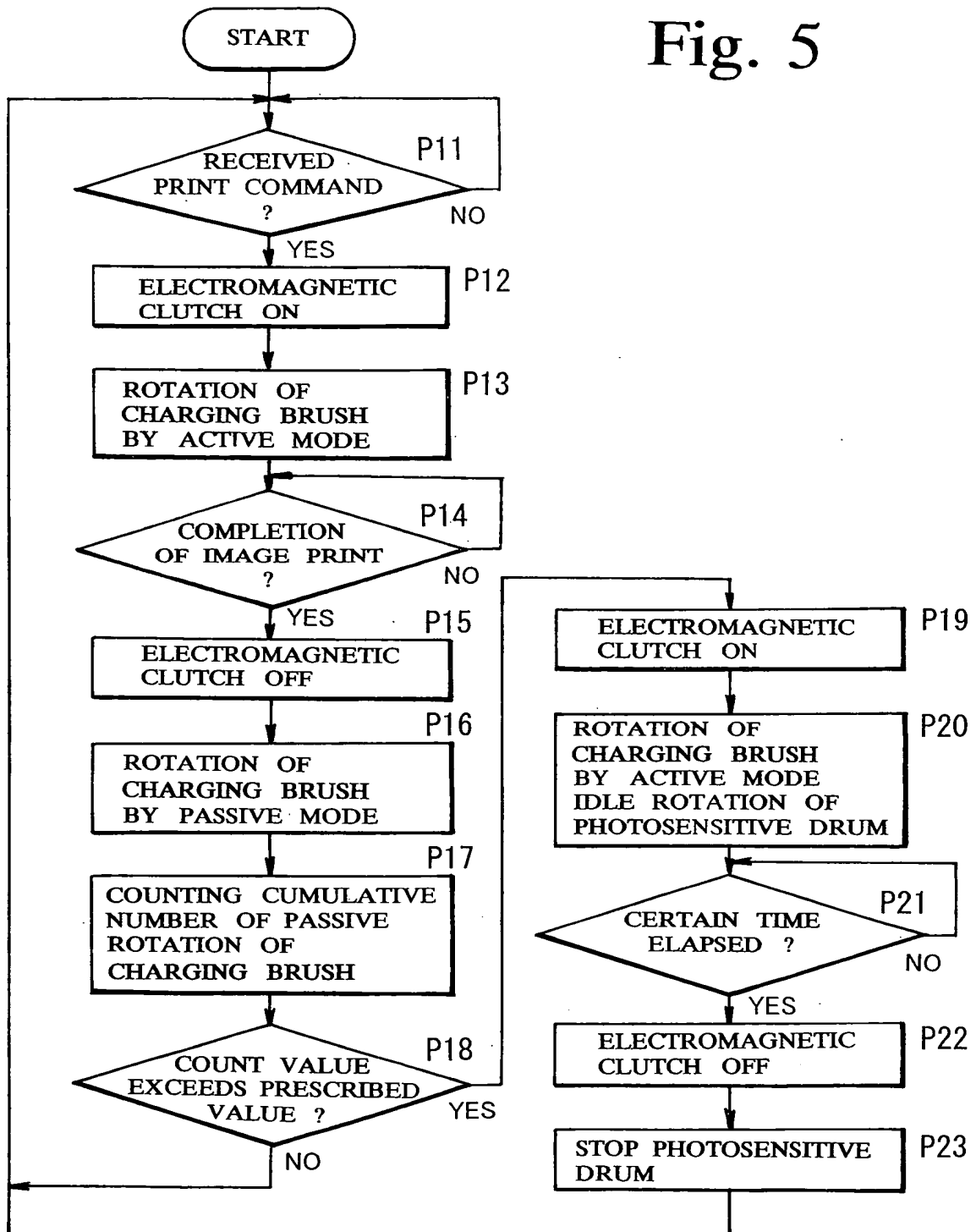


Fig. 6

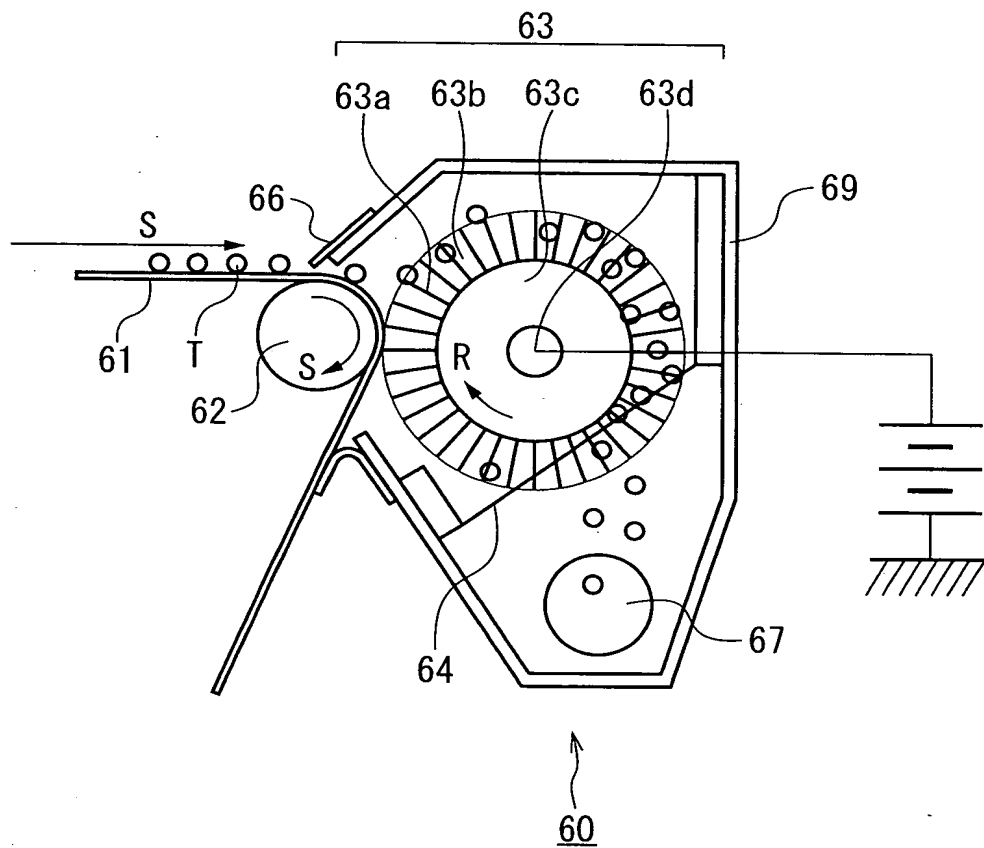


Fig. 7

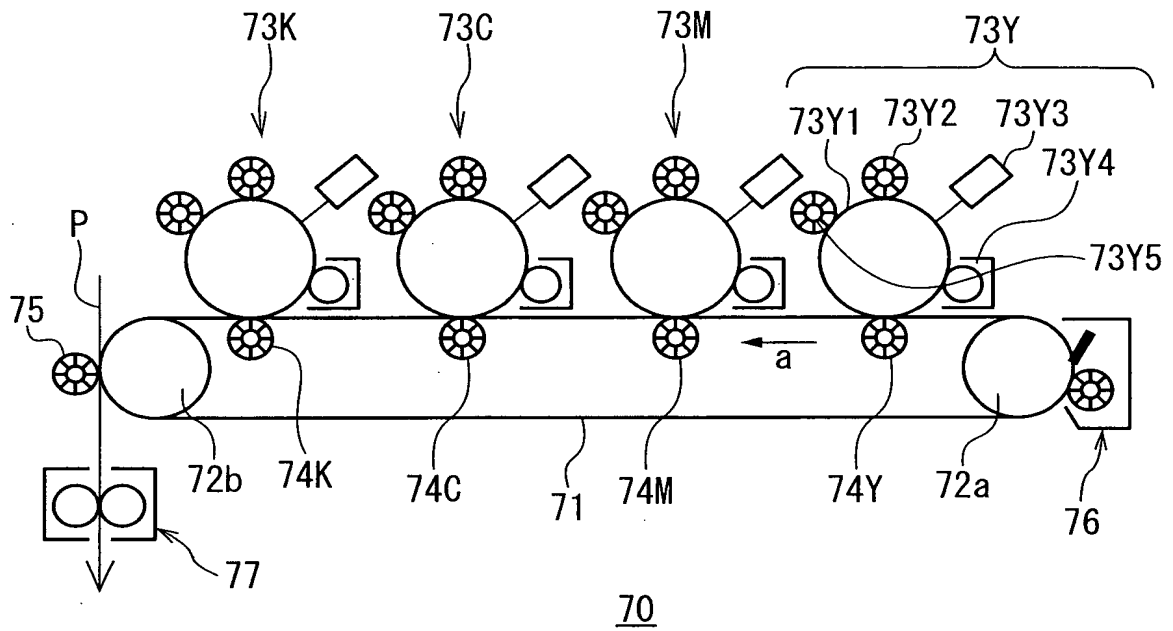
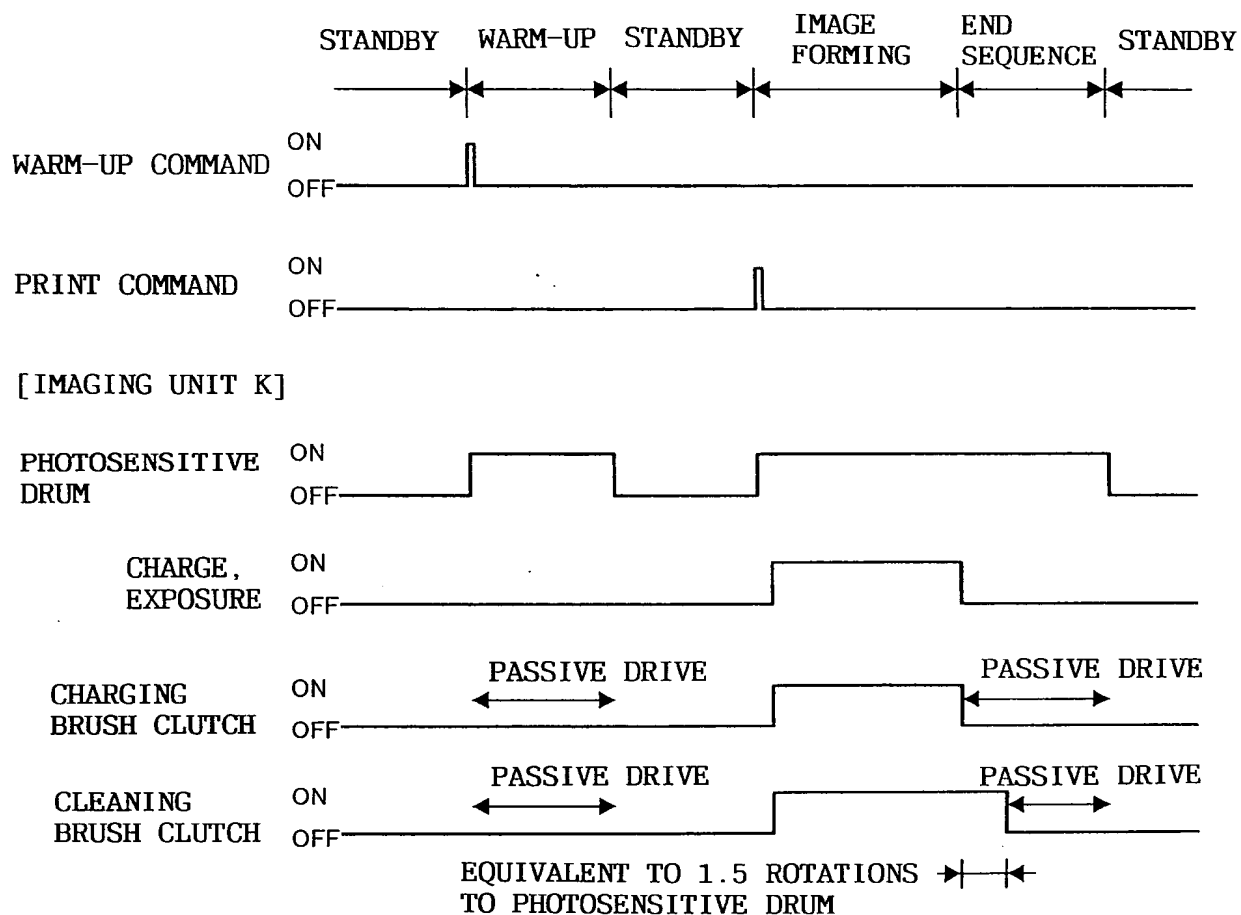


Fig. 8



[IMAGING UNITS C, M, Y]

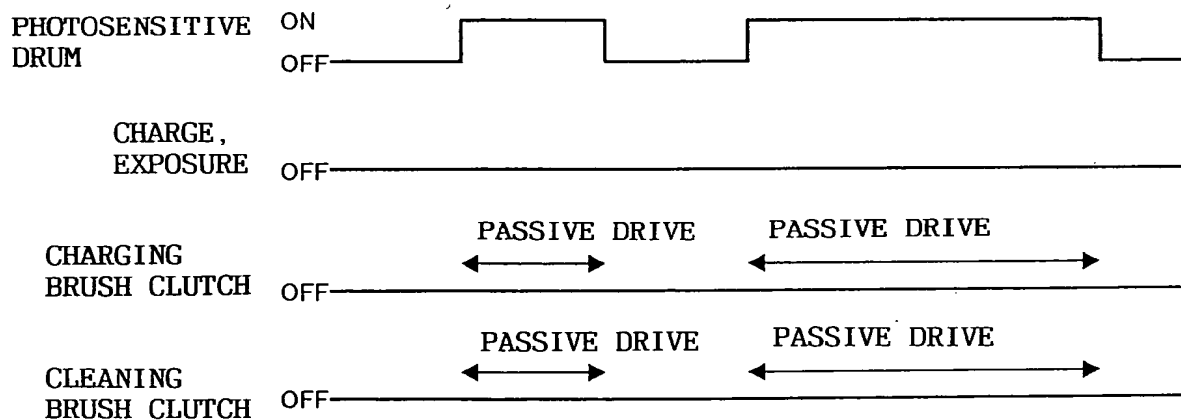


Fig. 9

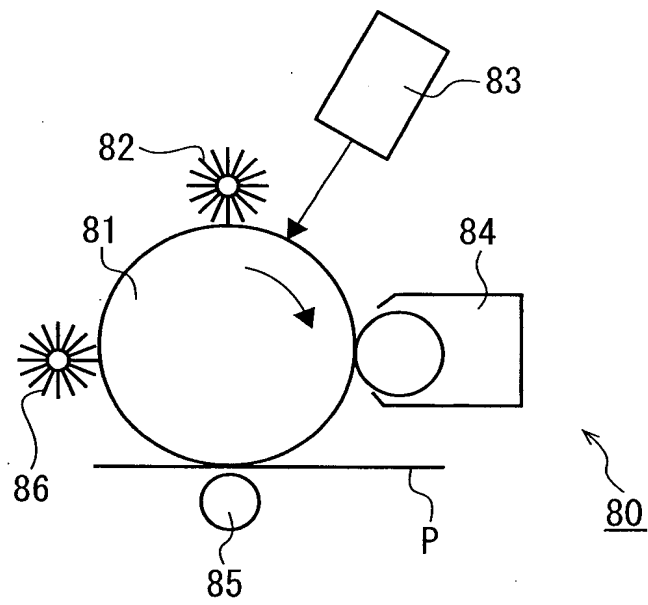


Fig. 10(a)

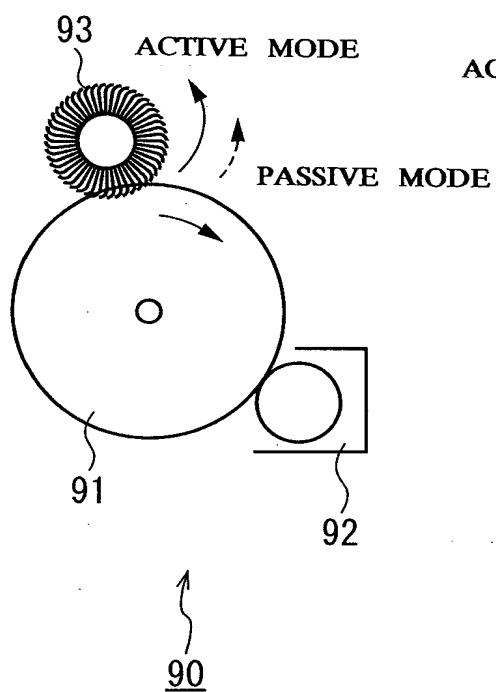


Fig. 10(b)

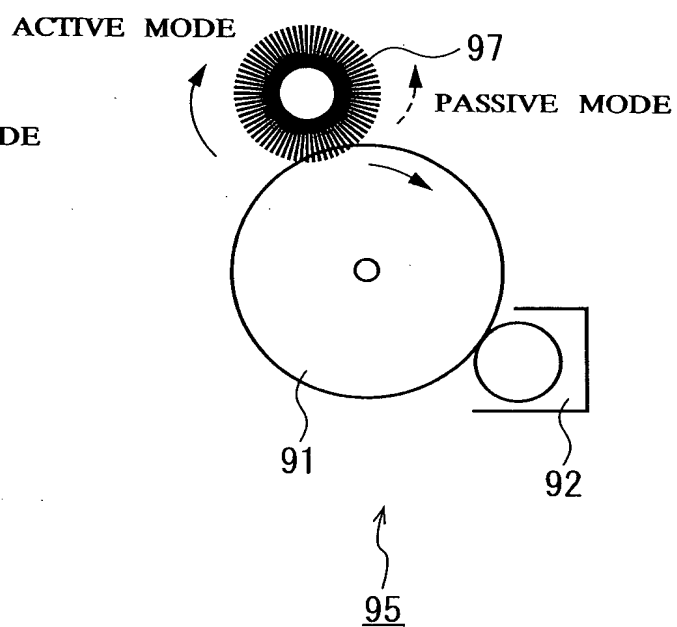


Fig. 11

	A	B	C
FIBER PLANTING DENSITY F/25.4mm ²	30K-500K	50K-500K	30K-100K
FIBER FINENESS D	2D-10D	2D-6D	4D-10D
FIBER LENGTH	3mm-7mm		

Fig. 12

EXPERIMENT I (Electrifying Brush – Photosensitive Drum)

	Passive/Active Rotation Mode Switching	Amount of Push p [Nip width n]	Drum Drive Time(s) [Number of Rotation(n)] Before Forced Rotation of Brush	Voltage Application in Passive Rotation	Degree of Abrasion (μ m)	Disorder of Brush Fiber	Image Unevenness	Over all Evaluation
Sample 11	YES	0.5mm (4.9mm)	240(s) about 1100(n)	YES	0.9	◎	◎	◎
Sample 12	YES	0.08mm (2.0mm)	240(s) about 1000(n)	NO	1.9	○	○	△
Sample 13	YES	0.5mm (4.9mm)	240(s) about 1100(n)	NO	1.3	◎	◎	◎
Sample 14	YES	2.0mm (9.2mm)	240(s) about 1400(n)	NO	2.0	◎	◎	◎
Sample 15	YES	0.5mm (4.9mm)	2800(s) about 12300(n)	NO	2.0	○	○	△
Sample 16	YES	2.0mm (9.2mm)	1700(s) about 10200(n)	NO	2.3	○	○	△
Reference 11	NO	0.5mm (4.9mm)	———	———	4.6	◎	△	△△
Reference 12	YES	0.05mm (1.5mm)	240(s) about 1000(n)	YES	2.1	○	x	x

Fig. 13

EXPERIMENT II (Cleaning Brush – Photosensitive Drum)

	Passive/Active Rotation Mode Switching	Amount of Push p [Nip width n]	Drum Drive Time(s) [Number of Rotation(n)] Before Forced Rotation of Brush	Voltage Application in Passive Rotation	Degree of Abrasion (μ m)	Disorder of Brush Fiber	Image Unevenness	Over all Evaluation
Sample 21	YES	0.5mm (5.6mm)	840(s) about 2900(n)	YES	1.2	◎	◎	◎
Sample 22	YES	0.06mm (2.0mm)	1680(s) about 5400(n)	NO	1.9	○	○	△
Sample 23	YES	0.1mm (2.5mm)	1680(s) about 5400(n)	NO	1.2	◎	◎	◎
Sample 24	YES	0.5mm (5.6mm)	1680(s) about 5700(n)	NO	1.2	◎	◎	◎
Sample 25	YES	1.76mm (10.0mm)	1680(s) about 6900(n)	NO	1.6	◎	◎	◎
Sample 26	YES	2.0mm (10.6mm)	1680(s) about 7100(n)	NO	1.9	◎	○	○
Sample 27	YES	0.5mm (5.6mm)	4400(s) about 14990(n)	NO	1.7	○	◎	○
Sample 28	YES	0.5mm (5.6mm)	5900(s) about 20100(n)	NO	1.7	△	◎	△
Sample 29	YES	1.76mm (10.0mm)	3700(s) about 15200(n)	NO	2.0	○	◎	○
Reference 21	NO	0.5mm (5.6mm)	———	———	5.2	◎	△	△△
Reference 22	YES	0.05mm (1.8mm)	1680(s) about 5400(n)	NO	1.1	○	x	x
Reference 23	YES	2.5mm (11.6mm)	1680(s) about 7800(n)	NO	2.7	○	x	x